

Preliminary Amendment
U.S. National Stage of PCT/AU2003/001521
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Page 2

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) An apparatus for dispersing a fine powder, the apparatus including a container for receiving contents which include the fine powder and beads of a relatively large dimension compared with the powder, a rotor rotatably mounted within the container for co-dispersing the contents when the rotor is driven, the rotor being adapted to be rotated at a relative high speed and having means for establishing an electric field in the container and for mechanically dispensing the contents of the container, a discharge port from the container having means to control discharge of a dispersion of fine powder from within the container and to retain the beads within the container.
2. (original) An apparatus in accordance with claim 1, wherein the electric field establishing means of the rotor comprises an electrostatic charge generator connected to an axial extending rotatable shaft portion of the rotor and the rotor has a plurality of metal arms extending in respective planes extending axially and radially.
3. (original) An apparatus in accordance with claim 2, wherein the rotor is adapted to be driven at around 9000 rpm by an electric motor, and the apparatus includes a drive belt and driven pulley for the rotor of polymeric material for generating electrostatic charges, the metal arms being connected to the rotatable shaft portion which is of metal.
4. (original) An apparatus in accordance with claim 3, wherein each of the arms is blade-like with a sharp edge directed outwardly from the shaft portion.

5. (original) An apparatus in accordance with claim 4, wherein the metal arms are accurate with a razor-sharp periphery over the majority of the edge, and the arms comprise four which are spaced uniformly around the axis of the rotor.
6. (original) An apparatus in accordance with claim 5, wherein each blade has an outwardly extending projecting tab of resilient, insulating material for acting as a paddle to interact with contents of the container.
7. (currently amended) An apparatus in accordance with ~~any one of claim[[s]] 1 to 6~~, wherein the discharge control means comprises an outer mesh layer for transmitting particles of up to about 10 microns and an inner mesh layer, spaced inwardly from the outer layer, and having a mesh size for transmitting particles of up to about 75 microns.
8. (original) An apparatus in accordance with claim 7, wherein the outer and inner mesh layers are spaced apart by up to about 1mm and the space contains a filtering fine powder.
9. (currently amended) An apparatus in accordance with ~~any one of claim[[s]] 1 to 6~~, wherein the beads are around 2-3mm in diameter and around 50-100 beads are included in the container.
10. (original) An apparatus in accordance with claim 9, wherein the beads are of a resilient insulating and wear resistant material.
11. (currently amended) An apparatus in accordance with ~~any one of claim[[s]] 1 to 6~~, and having a discharge duct connected to the discharge control means for inhalation therapy, the contents comprising a micronised powder pharmaceutical and millimetre sized polymeric beads, the apparatus further comprising electrical control means to create a short burst of a discharged

cloud of pharmaceutical to provide a controlled dose.

12. (original) An apparatus in accordance with claim 11, wherein the container incorporates the rotor and contents and is detachably mountable on a base unit which mounts batteries, the electrical control means and a motor to drive the rotor at around 9000rpm.

13. (original) A method of inhalation therapy comprising using the apparatus as claimed in ~~any one of the preceding claims~~ claim 1 to periodically discharge on demand a short burst of micronised powder pharmaceutical.

14. (new) An apparatus for dispersing a fine powder, the apparatus including a container for receiving contents which include the fine powder and beads of a relatively large dimension compared with the powder, a rotor rotatably mounted within the container for co-dispersing the contents when the rotor is driven, the rotor being adapted to be rotated at a relative high speed and having means for establishing an electric field in the container and for mechanically dispensing the contents of the container, a discharge port from the container having means to control discharge of a dispersion of fine powder from within the container and to retain the beads within the container, wherein the discharge control means comprises an outer mesh layer for transmitting particles of up to about 10 microns and an inner mesh layer, spaced inwardly from the outer layer, and having a mesh size for transmitting particles of up to about 75 microns, and wherein the outer and inner mesh layers are spaced apart by up to about 1mm and the space contains a filtering fine powder.

15. (new) An apparatus according to claim 14 and wherein the beads are around 2-3mm in diameter and around 50-100 beads are included in the container.

16. (new) An apparatus according to claim 15, wherein the beads are of a resilient insulating and wear resistant material.

17. (new) An apparatus according to claim 15, and further comprising a discharge duct connected to the discharge control means for inhalation therapy, the contents comprising a micronised powder pharmaceutical and millimetre sized polymeric beads, the apparatus further comprising electrical control means to create a short burst of a discharged cloud of pharmaceutical to provide a controlled dose.

18. (new) An apparatus according to claim 17, wherein the container incorporates the rotor and contents and is detachably mountable on a base unit which mounts batteries, the electrical control means and a motor to drive the rotor at around 9000rpm.